

CLAIMS

1. Packaged Integrated Circuit (PIC), comprising at least one radio frequency component included in an Integrated Circuit die (ICD) being
5 associated with a radio frequency antenna (RFA), said Integrated Circuit die (ICD) being included in said Packaged Integrated Circuit (PIC)

CHARACTERISED IN THAT said radio frequency antenna is also included in said Packaged Integrated Circuit package (PIC) and is excluded from said Integrated Circuit die (ICD).

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2. Packaged Integrated Circuit (PIC) according to claim 1,
CHARACTERISED IN THAT said Packaged Integrated Circuit (PIC) includes an Integrated Circuit Package (ICPA) which houses said at least one radio frequency component and said radio frequency antenna (RFA) which is
15 constituted by at least one metal object that is part of said Integrated Circuit package.

3. Packaged Integrated Circuit (PIC) according to claim 2,
CHARACTERISED IN THAT said radio frequency antenna (RFA) is constituted
20 by a wire bonding coupled to said Integrated Circuit die (ICD).

4. Packaged Integrated Circuit (PIC) according to claim 2,
CHARACTERISED IN THAT said radio frequency antenna (RFA) is applied on a metal lead frame of said Integrated Circuit package (ICPA).

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5. Packaged Integrated Circuit (PIC) according to claim 1,
CHARACTERISED IN THAT said radio frequency antenna (RFA) consists of at least one planar metal pattern separated from a grounded metal plane by an insulating layer.

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6. Packaged Integrated Circuit (PIC) according to claim 5,
CHARACTERISED IN THAT said planar metal pattern is a metal slot-pattern
and said insulating layer is ceramic layer.

5 7. Packaged Integrated Circuit (PIC) according to claim 6,
CHARACTERISED IN THAT said slot pattern consists of a first S-shaped slot.

8. Packaged Integrated Circuit (PIC) according to claim 7,
CHARACTERISED IN THAT said radio frequency antenna (RFA) comprises a
10 second S-shaped slot rotated 90 degrees with regard to said first S-shaped slot.

9. Packaged Integrated Circuit (PIC) according to claim 1,
CHARACTERISED IN THAT said Integrated Circuit package (ICPA) is a Ball
Grid Array package.
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10. Packaged Integrated Circuit (PIC) according to claim 1,
CHARACTERISED IN THAT said Integrated Circuit package (ICPA) is a Quad
Flat Pack package.

20 11. Packaged Integrated Circuit (PIC) according to claim 1,
CHARACTERISED IN THAT said Integrated Circuit package is a Small Outline
package.

25 12. Radio Frequency Module including at least one Packaged
Integrated Circuit (PIC) according to any of the claims 1 to 11.

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ABSTRACT

PACKAGED INTEGRATED CIRCUIT